# STATEMENT OF WORK

## FOR

Sandblast, Prep, Prime, Paint and BIBS Valve Replacement of the YDT-17 & 18 Recompression Chambers

At Naval Diving and Salvage Training Center Panama City, Florida

DRAFT - Subject To Changes.

## YDT SOW for Painting Chamber & Valve Replacement 2014/2015

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#### I. References:

- NAVSEA-OOC3-PI-001, Recompression Chamber Interior Painting &
- B. U.S. Navy Diving and Manned Hyperbaric System Certification Manual SS521-AA-MAN-010, Rev 2 Dated 1 Nov 2006
- C. YDT 17 & 18 DLSS Drawings listed under #53711-592-7371361 and 53711-592-7371363 (Drawing Trees)
- US Navy Diving Manual SS521-LP-708-8000, Revision 6 D.
- Standardized Diver Re-entry Control Procedures E.
- MIL-STD-1622, Cleaning of Shipboard Compressed Air Systems
- MIL-STD-1330, Standard Practice for Precision Cleaning and Testing of Shipboard Oxygen, Helium-Oxygen, Nitrogen and Hydrogen Systems
- National Equipment Manufactures Association (NEMA)
- Occupational Safety and Hazards Administration (OSHA)
- American Society of Manufacturing Engineers (ASME) J.
- Cleaning & Gas Analysis for Diving Applications, SS521-AK-HBK-010 and NAVSEA TS500-AU-SPN-010

#### Period of Performance/Availability for each Vessel: Yard Diving Tender (YDT) 11.

- YDT-18: 29 Apr thru 23 Jul, 2014 a.
- YDT-17: 10 Oct 2014 thru 9 Jan 2015 b.
- Both vessels will have a two week period alongside the NDSTC pier C. before going to a shipyard (location yet to be named) for the vessel overhaul work. Following the shipyard period the vessels will return to NDSTC piers for a three week period to wrap up chamber work and recertification of the Chamber systems.

#### III. Purpose:

This Statement of Work (SOW) outlines the requirements as well as defining the specific work requirements for paint removal, surface preparation, repainting, atmosphere sampling, and View Port Replacements of the interior of steel recompression chambers associated with YDT-17 and YDT-18. The procedures and references outlined in this SOW and contained in references A. through K. and the guidance of this SOW will be used to plan, cost estimate and complete the interior painting of the YDT-17 & 18 Recompression Chambers as well as replacement of each chambers Built In Breathing System (BIBS) external Supply and Exhaust valves with Government Furnished Equipment (GFE) valve replacements. The valves to be replaced are:

- 1) Outer Lock Supply valve- "OX-V-853"
- 2) Outerlock Exhaust valve- "EX-V-855"
- 3) Innerlock Supply valve- "OX-V-852"
- 4) Innerlock Exhaust valve- "EX-V-854"

#### IV. Scope:

References A. thru K. outline the technical references which will be used to perform the internal application of a new paint system inside both YDT-17 and YDT-18 Chambers as well as replacement of the chamber view ports and chamber BIBS hull valves with commercially available and supportable models. Specifics of each contract requirement are as follows:

- 1) Chamber pre-sandblasting preparation- The contractor will prepare the chamber interior for paint removal with the controlled removal of all internal assemblies, piping, viewports (for replacement), hangers, BIBS Manifolds, exhaust manifolds, Environmental Control System (ECS) blowers and associated wiring/piping, deck plates and supporting structure, and Communication systems to include both powered communication boxes and sound powered systems in both inner and outer locks, o'rings in both inner and outer lock doors, blanked off fittings, Medlock inner pressure door, metal bunks and associated hardware and any other item which may be damaged from paint removal or later application.
  - (a) When removing the existing viewports they need to be handled with care to prevent dropping, scratching or causing any contact damage to occur. The contractor will purchase new viewports and associated software complete with all Objective Quality Evidence (OQE) to replace existing viewport assemblies. The existing (removed) viewports will be turned over to the Dive School upon removal. All viewport software will be replaced with new software.
  - (b) When the ECS system is disconnected the water/propylene coolant will be collected and held for proper disposal and or replacement by the contractor.
  - (c) The contractor will ensure all removed internal chamber equipage and assemblies are kept in segregated storage, are properly tagged and identified and clean prior to reinstallation in the chamber interior.
  - (d) All removed chamber air/gas supply and exhaust piping, caps and manifolds will be maintained in the cleanliness standard for Divers Air or Oxygen, references B., D., E., F. and G. refer.
  - (e) Medlock doors will be removed and the sealing surfaces protected from blast and follow-on paint application.
  - (f) The CANTY lights can stay installed, however the Fiber Optic surfaces visible inside both the Inner and Outer Lock need to be protected from all work and paint application.

- 2) Removal and Replacement of Inner and Outer Lock BIBS Supply & Exhaust valves- The contractor will remove the Inner and Outer Lock Supply and Exhaust valves outlined in section III above. The present valves are no longer commercially supported and can no longer be repaired and so must be replaced. The government will supply the replacement valves which will be four valves, per craft. All other associated piping and materials to weld these valves in place will be the responsibility of the contractor. Reinstallation of GFE and associated parts and assemblies will require all the Objective Quality Evidence (OQE) required in references B. thru K. OQE requirements for this portion of the work will include:
  - (a) All purchase orders for all components
  - (b) All weld records to include weld material, eye exams, welder qualification for type weld and material.
  - (c) All Hydrostatic testing documents for each component and/or assembly.
  - (d) All oxygen clean documentation
  - (e) All controlled assembly documentation
  - (f) All system tightness testing
  - (g) All Joint tightness testing documentation
  - (h) All operational testing documents
  - (i) Certificates of Conformance for all new purchased material, parts and assemblies.
  - (j) American Society of Manufacturing Engineers (ASME)
- (k) Cleaning & Gas Analysis for Diving Applications, SS521-AK-HBK-010 and NAVSEA TS500-AU-SPN-010

Note: NDSTC will assist in system Tightness and Joint tightness testing if conducted using system gas. New valve installation for these two vessels will be considered completed when all testing is satisfactory in accordance with the references B. thru J. above.

- 3) Preparation for Painting of both YDT Chambers- The contractor will prepare, sandblast to bare metal, clean, prime and paint both YDT chamber interiors to include Inner & Outer Locks, bilges and pressure doors. The painting will be performed in accordance with reference A. using the paint system called out in the Process Instruction contained in reference A. The contractor will follow the following processes:
  - (a) Painting Plans- All painting plans must be submitted by the contractor and approved by NDSTC's Engineering Officer.

- (b) All preparation, blasting and painting must be completed in the period prior to the vessels proceeding to the shipyard portion of the upkeep period. These pre-yard periods will be two weeks long each.
- (c) Hazardous materials Handling and Disposal- The contractor and the paint team will be required to receive Hazardous Material handling training before any work can be performed. This training can be performed by the Hyperbaric's Division Officer in about one hour. All hazardous materials must be handled and disposed in accordance with approved NSA-Panama City requirements.
- (d) Painting Materials- Paints shall be delivered in original factory containers that plainly show the designated name, specification number, batch number, color, date of manufacture and manufacturer's directions. All painting materials for the interior of the YDT Chambers shall be per reference A.
- (e) Surface preparation- Threaded hardware, stainless steel, other metal surfaces, CANTY Light penetrators, viewport retaining rings, hatch sealing surfaces and all other penetrators shall be masked and protected prior to any surface preparation and follow-on coating operations. Following the completion of painting, masking and/or other protective materials shall be removed and all protected surfaces carefully cleaned to remove all residue or adhesive left behind.
- (f) Work Enclosure- The contractor will construct an enclosure prior to sandblasting or painting which will be situated to isolate the Chamber Compartment from the blasting/painting process. The enclosure will be constructed of light weight material similar to "Glove Bag" type enclosures. The Enclosure can be fixed to the Chambers entry door by tape and the other adhesive to the Water Tight vertical hatch from the exterior to the Chamber room. The enclosure shall be kept in satisfactory condition throughout the process so as to prevent any sandblasting or removed material from being introduced to the air or surrounding compartment. The enclosure will be equipped with a negative pressure system to assist in preventing debris from being forced outside of the work area.
- (g) Interior Surface Blasting- The entire Interior of both chambers shall be abrasive blasted or mechanical centrifugally blasted to "white metal" in accordance with SSPC SP-10 standards. Bare surfaces shall be cleaned of any loose scale, rust, dirt, and or other deleterious substances which may impede good paint adhesion. Personnel performing sandblasting shall conform to the paragraph entitled "SAFETY" below.
- (h) Shot Disposal- The contractor is responsible for containing and proper disposal of all sandblasting materials, residue and materials in accordance with reference I and other NSA-Panama City HAZMAT disposal requirements.

### 4) Chamber Paint Application for both YDT Chambers:

- (a) After being sandblasted, and cleaned in preparation for painting in accordance with reference A., all interior surfaces of each chambers Inner & Outer Lock to include the interior surfaces of doors shall be painted in accordance with sections Two and Three of reference A.
- (b) Paint Inspection- After the Primer coat has dried for the specified time, the interior of the chambers shall be inspected for porosities. Porosities shall be marked and patched with primer. The finished surfaces of both chambers shall be free from runs, sags, and variations in color, texture and finish. All surfaces including edges, corners, crevices, welds and fasteners shall receive a film thickness equivalent to adjacent painted level surfaces. Each coat shall be inspected during and immediately after application for wet film thickness, pinholes, runs and sags. The film thickness shall conform to the specifications of this contract and reference A. Pinholes, runs, and sags on the painted in the affected area and reapplication of the coat. Pinholes still wet, by removing the paint has been applied must be filled properly. Each coat shall dry and be determined "hard" before application of the next coat and all paint work shall be subject to inspection at any time to ensure strict compliance with the specifications.
- (c) Damage Repair- Surfaces damaged by the contractor during the painting processes shall be refurbished to "as new" condition at the contractors cost.
- (d) Safety- In all buildings and areas where painting, as called out in this specification is accomplished, the contractor shall take special precautions to see that proper ventilation is provided. Continuous forced-air circulation must be provided during coating application. In confined areas, workmen in accordance with reference I. must wear airline respirators with a source of low pressure fresh breathing quality air. Precautions shall be taken to provide eye protection for the workmen when spraying. No painting shall be done adjacent to any fire hazard such as welding or open flame.
- (e) MSDS Sheets- OSHA Material Safety Data Sheets shall be provided for the paint system called out in this specification to include all solvents or thinners used in the preparation of the surfaces or mixing, thinning and cleanup chemicals.
- (f) Painting Workmanship- All work shall be done by skilled painters in a manner to produce a smooth, workman-like finish and finished product. Any final painted surface should be free of sharp protrusions, pockets and pinholes. Paint determined to be incorrectly applied shall be repaired immediately at the contractor's expense to include any retest cost and atmospheric test verification or Bomb Sample.
- (g) Extra Paint- The contractor will provide one gallon of unopened and unused paint per vessel of the paint used in this specification. Paint shall be in new, unopened containers, clearly marked with date of manufacturer.
- (h) Weekend Painting- All painting which is done by the contractor shall be closely coordinated with the NDSTC Hyperbaric's Division Officer as well as the vessel's

Master. If a Sub-contractor is used for the painting portion then the Prime Contractor will have one of its own responsible employees on site on the vessel being painted to be responsible for the specification of this contract and to ensure security precautions specific to the facility are observed and followed by the subcontractor.

Ambient Interior Chamber Gas Analysis- The contractor will perform an Ambient Chamber Gas Analysis, also known as "Bomb Sample", as soon as practicable upon the each vessels return from the "Shipyard" portion of the vessels' overhaul. The samples can be taken using the installed vessel DLSS Air System with the assistance of the NDSTC Hyperbaric's division to set up, pressurize and assist as needed in the sampling process. Ambient samples shall be taken following a 24 hour "Soak Time" of the Inner & Outer Lock at 60 feet of sea water. Each chamber must pass the interior atmosphere gas analysis requirements of the table provided below:

CONTAMINANT  Butyl Alcohol Isopropanol Toluene Methyl Isobutyl Ketone Vinyl Chloride Benzene Carbon Dioxide Carbon Monoxide Methane Total Hydrocarbons less Methane Halogenated Hydrocarbons	MAX LIMIT (PPM)  100 50 50 100 2 1 1000 20 1000 25 5
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- 6) **Drawings** NDSTC QA Division will be performing the drawing modifications for the BIBS valve(s) replacement. The contractor will provide all information on the replacement of the four BIBS Supply and Exhaust valves (per vessel) to the NDSTC QA Division in enough time and detail to facilitate the accurate correction of existing drawings. This information will include, but is not restricted to, all part data, component breakdown, and product data sheets.
- 7) Equipment Replacement- The contractor will replace the Carbon Dioxide Monitor, Oxygen Monitor and Chamber Ground Fault Indicator (GFI) Breaker with assemblies to fit the "foot-print" and power availability on both chambers. The contractor will recommend to NDSTC the selected replacement equipment intended for use prior to purchase for approval.

### V. Requirements:

1) Provide a Plan of Action & Milestones (POA&M) outlining the entire chamber painting process for both vessels. This plan will address major milestones, a method to accomplish all the work contained herein, ways to minimize mutual interference with other work to be performed, and return the Recompression Chamber to ready certified service in accordance with references A., B., C., D. and E. Additionally, it is requested the contractor purchase the all materials to perform the entire Scope of

Work for both vessels prior to starting the YDT-18 period of performance outlined in paragraph II, a. above. This will necessitate all materials be billed up-front as well as labor and travel costs for YDT-18, leaving only Labor and travel expenses being invoiced and paid for YDT-17 upon completion and successful certification.

- 2) The contractor will provide and install an exterior cover for the chamber which will protect the chamber exterior and all components, electrical and mechanical from the processes of sand blasting and painting. The protective cover will be attached so as not to allow sandblast grit or stray paint to collect on any exterior surface, vertical or horizontal.
- 3) The contractor will also take the necessary precautions prior to sandblasting to ensure the rest of the components in the space containing the chamber are also covered so as not to allow sandblast grit or stray paint to collect on any surface or object within the room. Additionally all ventilation ducts will be covered with plastic and secured against any foreign matter being introduced into the ducting.
- 4) All work and follow-on certification <u>must be performed within the given time</u> constraints for each vessel.
- 5) Upon the receipt of a satisfactory interior chamber atmosphere sample, the contractor will remove protective covers, tape and other items employed to protect the chambers and the chamber rooms. All dust, paint over spray and adhesive residue will be removed from all vertical and horizontal surfaces returning the chambers and the chamber rooms to the condition they were in prior to the start of this SOW.
- 6) Provide all technical data and deliverables in an auditable fashion. This data includes but is not limited to all Objective Quality Evidence (OQE), Certificates of Compliance (COC), Original Equipment Manuals (OEM) or "cutsheets", MSDS Sheets for chemicals, paints and solvents used.
- 7) The contractor will work closely with NDSTC personnel to ensure the efforts of the contractor and government are closely coordinated in an effort to preclude any possible mutual interference.

#### VI. Deliverables

The contractor will provide the below deliverables during the performance of the SOW (as required) and at the completion of this SOW. In no particular order:

- 1) Plan of Action & Milestones (POA&M) which outlines in detail the entire effort to complete this SOW. Include sequence of the project from parts and consumable ordering, to reassembly of the chamber interior, support testing and final certification by the government. The final POA&M is **due within one month of contract award** and must be accepted by the government prior to work beginning.
- 2) The contractor will provide one copy of all OQE information in three ring binders with indexes and dividers for each principle item, relative to reference B. quality assurance

provisions in sufficient depth, detail and organization for all components and materials installed as part of this SOW. All QA documentation shall be legible, accurate, auditable and complete. Each document shall be dated and signed and shall indicate, by the signature, that the subject work, procedures, materials and components meet the requirements of this SOW, references A., B., C., F., G. and the manufacturers recommendations. The OQE shall include but is not limited to copies of:

- (a) Two separate (one for each vessel) chamber interior off-gassing purity analysis reports meeting the requirements listed in reference A. will be performed. These samples shall be taken so as to encompass the entire chamber, Inner and Outerlock for which the test represents.
- (b) Material Safety Data Sheets (MSDS) for all paints, solvents and other hazardous material intended for use on this project.
- (c) Certificates of Compliance (COC) for all new parts purchased or used in the performance of this SOW. In the absence of OEM COC documentation, the Prime Contractor will use the purchasing document from the original manufacturer and will provide a "Prime Contractor" COC outlining the specific parts, part number, quantities, required testing, expiration dates, cure dates and warranty.
- (d) The contractor will provide a "plan view" of the interior chamber inner lock and outer lock documenting both the locations of the newly installed viewports as well as the mil thickness inspection of both the primer and top coats.
- (e) All required records per reference B. to include all welding qualifications, eye tests, weld log, heat numbers, and Joint Identification.
- 3) The criticality and hazards of safely working on and certifying DLSS systems requires the contractor to have liability insurance. The contractor shall procure, at the contractor's expense, show and keep in its possession statutory Worker's Compensation and General Commercial Liability Insurance with a limit not less than \$250K covering U.S. Navy government owned equipment. A valid certificate of insurance which is current and fully active for the period of services by the contractor naming NDSTC as an additional name insured and specifying such coverage. This commencement of any and all services fulfilling this contract. Failure to provide this insurance certificate shall disqualify any contractor for all work associated with this project.
- 4) Provide the proper identification to the government representative that any and all contractor or subcontractor personnel hired to request access to the government facility or the vessel to which labor will be performed have been each screened to be United States Citizens. Such verification will be properly filled out by the Prime Contractor for all personnel hired or working under this contract. Badging must take place for any government facility or the vessels described under this contract.

### VII. General Paragraphs:

- 1) Special Performance Requirements- Attention of prospective offerors is called to the fact that this contract calls for the fabrication and repair of life sensitive support systems. Failure to adhere to the highest standards of metallurgy, welding and workmanship will create severe hazards to life and persons working with this equipment and these systems. Failure at any time to meet these requirements may be cause for termination for default, and in any event will be cause for government rejection of plans, procedures or components.
- 2) Contractor Technical Responsibility- This contract contains technical requirements to which the contractor must adhere; however, it is the contractor's responsibility to confirm by engineering analysis that component sizes, choices sited herein are adequate to safely perform the operational/Performance Requirements of reference A. through J. Any technical issues or data not specified herein or within references A. through K. are at the discretion of the contractor. The contractor shall cite his intentions in these areas as soon as they become known by Request for Information or Intention (RFI). The government will respond in two working days on each RFI received.
- 3) Conformance Requirements- Omissions from drawings, specifications, or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work but they shall be performed as fully and correctly set forth and described in the drawing and specifications.
- 4) Contractor Site Verification Check- This contract requires the performance of critical chamber and DLSS system repairs and modification concurrent with other ship's overhaul work in-progress. The contractor is strongly encouraged to perform site verification checks of the vessel, its moorings and location.
- shall become familiar with and obey all station regulations including fire, hot work procedures, traffic, environmental and security regulations. All personnel employed on the station or at the vessel location shall keep within the limits of the work and avenues of ingress and egress. Personnel shall not enter any area for which they have no business or is restricted in any way by security access, but should instead ask and receive proper access for any area for which they desire access that may be restricted. The contractor's vehicles, tool and materials shall be conspicuously marked for identification.
- 6) Access to the Vessel and Working Hours- Regular working hours shall be an 8 1/2 hour period established by the government between 7 a.m. and 5 p.m. Monday through Friday, excluding government holidays. For weekend or holiday work, the contractor shall make an application to the Hyperbaric's Division Officer for work outside the regular hours two (2) working days in advance of such a request.

- 7) Existing Conditions and extra obligations of the Contractor. The contractor will be working in completed sections of the vessel at various times of other work in progress. The contractor shall endeavor to keep his equipment clear of all other work and employed in such fashion as to eliminate safety hazards.
- 8) HOT WORK- The contractor will ensure he obtains the required HOT work "Chits" from the Base Fire Department prior to the commencement of any HOT Work. Additionally, the Hyperbaric's Division Officer and the Vessel Master will be made aware and their permission/concurrence given before HOT Work may proceed. The contractor is responsible for supplying his/her own "Fire Watch" when HOT Work is in progress. The Fire Watch will be properly outfitted with Personal Protective Equipment (PPE) and firefighting equipment by the contractor and will be properly briefed on his/her responsibility prior to HOT Work commencement. The Fire Watch will not secure until either 15 minutes following HOT Work securing or with the express permission of the vessels Master (Captain) or his designated representative.
- 9) Storage Areas- Unsecured outside space immediately next to the vessel pier side at NDSTC can be made available to the contractor upon request.
- 10) Cooperation with NDSTC Personnel- Attention is invited to the fact that normal school operations cannot be interrupted. The contractor shall cooperate and coordinate his work to avoid conflict with and interruption of the work of another insofar as practicable. In the case of conflict with normal school operations that cannot be resolved satisfactorily by local management, the matter shall be referred immediately to the Contracting Officer for decision, and such decision shall be the final one subject to the right of appeal in accordance with the terms of this contract.
- 11) Hazardous Materials handling- The contractor is responsible for submitting a list of all Hazardous Materials proposed for use within the scope of this contract. This includes the Material Safety Data Sheets (MSDS) for each separate component, a minimum of 10 days prior to scheduled usage of the materials to the Contracting Officer's technical Representative (COTR) and the NDSTC Engineering Officer, to obtain government approval.

"All personnel involved in the "on-site" contract performance and or administration must attend a NSA-PC Environmental Brief, prior to the start of any work."

This can be arranged by NDSTC Engineering or Supply Department personnel.

All Hazardous materials used and waste generated in the course of this contract that are or must be removed from the NDSTC Facility and Naval Station Activity, Panama City (NSA-PC) must be disposed of as specified by the Florida state code for disposal of Non-hazardous and hazardous materials. The contractor is responsible for obtaining the DOT approved shippable containers used to transport the HAZMAT/HAZWASTE to an approved receiving facility. Documents signed by the receiving facility once the material reaches it's final destination need to be returned to the NDSTC Engineering Officer and copies forwarded to the NSA-PC Environmental Office code PCXD42, for reporting purposes.

12) Repair and Restoration- If any process described herein causes damage to other existing features or other existing elements of the vessel or DLSS/Chamber being repaired in the performance of this contract, then that affected area shall be repaired and restored to it's original condition using similar methods and identical finish at the contractor expense.

#### VIII. Workmanship

Within the requirements of references A. through K., and accepted good engineering practices the Contractor shall ensure the highest degree of workmanship is performed throughout the contract. The contractor shall maintain quality workmanship no less than that found to be acceptable to references A., B., D., E., F., and G. and will be consistent with the existing mechanical and electrical systems presently installed on the vessel being repaired. All work preparation and finished work shall disallow the following conditions:

- 1) Runs in the paint
- 2) Paint not applied evenly at a consistent thickness throughout
- 3) Viewport sealing surfaces or Inner Lock and Outer Lock sealing surfaces not properly protected in accordance with reference A.
- 4) Protective coverings on unassociated equipment and room furnishings not properly protected or installed
- 5) Chamber and chamber room not restored to clean usable undamaged condition
- 6) Materials not suited to the selected application
- 7) Sand blast operators or paint crew not wearing proper personal protective equipment
- 8) HAZMAT or HAZWASTE not managed, disposed of or contained in an authorized manner

## IX. Government Furnished Equipment, Labor or Services

The government will support the contractor work in the following issues:

- The U.S. Navy will have the recompression chamber safely tagged out and depressurized prior to work starting.
- The chamber preservation effort will be worked and performed under a NDSTC Reentry Controlled Work package. All contractor OQE will support the closing of these REC packages for each vessels systems.

- 3) The government will provide fork lift services on a case basis with respect to fork-lift availability and maintenance. Any equipment larger than the NDSTC forklift that is required will be done so at the contractors expense.
- 4) The government will appoint a primary contract technical representative, normally the Hyperbaric's Division Officer, who will act as the sole point of contact and coordination for the performance of this contract.
- 5) The government will appoint and make available the NDSTC Quality Assurance Officer (QAO) to provide direct QA oversight, recommendations and contract audit services. The QAO will assist and attend to the smooth and correct details of contract deliverables, NAVSEA certification audits and the final acceptance of the DLSS and Chamber systems.
- 6) <u>Chamber BIBS Valves</u>- The government will supply the eight replacement BIBS valves cleaned to MIL-STD 1330 with all required OQE outlined in paragraph III, above. The GFE replacement valves which will be four valves, per craft. All other associated piping, materials and OQE to weld these valves in place will be the responsibility of the contractor.

### X. Contractors Schedule and Conduct of Work

NDSTC and the contractor will conduct a pre-construction meeting for the purpose of reviewing and/or amending the contractor's POA&M to ensure the sequence of the work is sound and any situation of mutual interference with other work in progress is identified and work-around agreed to. A start date will be determined to meet both the government needs and to allow the contractor to meet contract time requirements.

The contract requirements (completion date) for the Contractor's performance shall be one week prior to the end of the vessels Ship Restricted Availability (SRA) period to ensure there is time for the government final certification visit and testing. This completion date is a "HARD" date and every effort must be made to ensure any item, Contract Line item Number (CLIN) or other unforeseen issues are identified early and solutions addressed and agreed to in a timely manner.

The Contractor shall provide a point of contact within their company. This person will serve as the Contractor's Contract Administrator. This Contract Administrator will be required to monitor the contract progress at all times and he/she shall be empowered to make decisions for the contractor.

Any proposed changes or alterations of the contract must be submitted to the Contracting Officer in writing for review prior to executing any such changes to the existing contract. The NDSTC Engineering Department will provide advice to the Contracting Officer in a timely manner in order to quickly resolve any contract change requests and/or questions.

# XI. Inspection, Testing, Certification and customer acceptance of the repaired DLSS and Chamber Systems

The NDSTC Hyperbarics Maintenance Supervisor will provide a punch list, as discrepancies become known which require corrective action by the contractor. These items are limited to work schedule changes, work stoppage, issues of mutual interference, conflicts between contract provisions, items that are seen as safety hazards, poor workmanship, and other issues of non-conformance of contract specifications.

NDSTC will assist the contractor in performing the final atmosphere test sample for each chamber.

#### XII. Warranty

All equipment, components and services supplied by the contractor shall be provided with a one (1) year warranty to the government.

The Contractor will make a minimum of two visits to NDSTC within the warranty period to establish and confirm the requirements of this contract have been met and the equipment is operating to the required design parameters.